

## **EXHIBIT 1. BMP DEFINITIONS, SCHEDULES, AND REQUIREMENTS**

This Exhibit contains Best Management Practices (BMPs) that signatory water suppliers commit to implementing. Suppliers' water-needs estimates will be adjusted to reflect estimates of reliable savings from these BMPs. For some BMPs, no estimate of savings is made.

It is recognized by all parties that a single implementation method for a BMP would not be appropriate for all water suppliers. In fact, it is likely that in the future water suppliers will find new implementation methods even more effective than those described. Any implementation method used should be at least as effective as the methods described below.

The Council's 14 BMPs are now organized into five categories. Two categories, Utility Operations and Education, are "Foundational BMPs", because they are considered to be essential water conservation activities by any utility and are adopted for implementation by all signatories to the MOU as ongoing practices with no time limits. The remaining BMPs are "Programmatic BMPs" and are organized into Residential, Commercial, Industrial, and Institutional (CII), and Landscape categories. The minimal activities required of each signatory are encompassed within each list, except for activities from which a utility is exempt from completing under section 4.5 of the MOU and for which the utility has filed an exemption with the Council.

### **BMP Naming Changes**

<b>Old BMP Number &amp; Name</b>	<b>New BMP category</b>
1. Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers	Programmatic: Residential
2. Residential Plumbing Retrofit	Programmatic: Residential
3. System Water Audits, Leak Detection and Repair	Foundational: Utility Operations – Water Loss Control
4. Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	Foundational: Utility Operations – Metering
5. Large Landscape Conservation Programs and Incentives	Programmatic: Landscape
6. High-Efficiency Clothes Washing Machine Financial Incentive Programs	Programmatic: Residential

7. Public-information Programs	Foundational: Education – Public-information Programs
8. School Education Programs	Foundational: Education – School Education Programs
9. Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts	Programmatic: Commercial, Industrial, and Institutional
10. Wholesale Agency Assistance Programs	Foundational: Utility Operations – Operations
11. Retail Conservation Pricing	Foundational: Utility Operations – Pricing
12. Conservation Coordinator	Foundational: Utility Operations – Operations
13. Water-waste Prohibition	Foundational: Utility Operations – Operations
14. Residential ULFT Replacement Programs	Programmatic: Residential

Compliance with the BMP water savings goals can be accomplished in one of three ways including: accomplishing the specific measures as listed in Section A of each BMP; accomplishing a set of measures which achieves equal or greater water savings, referred to in this document as the Flex Track Menu; and accomplishing set water savings goals as measured in gallons per capita per day consumption.

A signatory may elect to adopt additional or alternative measures, in part or in any combination, as described in the Flex Track Menus, provided that the demonstrated water savings in the Flex Track Menu activities are equal to or greater than the water savings that would be achieved by the BMP measures.

“Demonstrated water savings” represent unit water savings for individual BMP or Flex Track Menu conservation technologies and activities as established by either: (a) a water utility; (b) independent research studies; or (c) CUWCC-adopted savings as reviewed by the Research and Evaluation Committee and approved by the Steering Committee.

Another alternative method to satisfying the BMP requirements is “GPCD (gallons per capita per day) Compliance”. Agencies which choose a GPCD Compliance approach will be counting overall water savings of the quantifiable measures from the BMP list or Flex Track Menu plus additional savings achieved through implementation of the Foundational BMPs. [The actual targets and methodology associated with the GPCD Compliance approach will be adopted by the Council Plenary in accord with the MOU; and is intended for adoption by the

spring Plenary of 2009 but will be no later than the summer 2009 Plenary.] Savings goals and methodology will be updated in the MOU Compliance Policies from time to time based upon data and studies.

The BMP definitions below are divided into the following sections:

**Section A: Implementation**

“Implementation” means achieving and maintaining the staffing, funding and, in general, the priority levels necessary to achieve the level of water savings or activity called for in the implementation section of each definition, and to satisfy the commitment by the signatories to use good-faith efforts to optimize savings from implementing BMPs as described in Section 4.4 of the MOU.

**Section B: Implementation Schedule**

Signatory water suppliers will implement the Best Management Practices according to the schedules in each definition. These schedules state the latest dates by which implementation of BMPs must be underway. It is recognized that some signatories are already implementing some BMPs and that these schedules do not prohibit signatories from implementing BMPs sooner than required.

**Section C: Coverage Requirements**

This section specifies the minimum level of coverage required by the BMPs.

**Section D: Requirements for Documenting BMP Implementation**

Section D of each definition contains the minimum record-keeping and reporting requirements for agencies to document BMP and Flex Track Menu implementation levels and efforts, and will be used to guide Council development of the BMP implementation report forms and database.

**Section E: Water Savings Assumptions**

Section E of each definition contains the assumptions of reliable water savings to be used in accordance with Sections 5.1 and 5.2 of the MOU. These will be updated from time to time by the Research and Evaluation Committee and published in the MOU Compliance Policy and BMP Guidebook.

**Section F: Flex Track Menu**

This section is included in the Programmatic BMP definitions. The approach is defined in this Exhibit, and the Menu is contained in the MOU Compliance Policy and BMP Guidebook, where it can be updated from time to time with approval of the Research and Evaluation Committee.

In this Exhibit, a measure is intended to be an individual activity and a practice is a set of measures.

## **FOUNDATIONAL BMPs**

### **1. UTILITY OPERATIONS PROGRAMS**

Water utilities throughout California are implementing water conservation programs and providing services to the customers they serve. There are four subcategories that comprise signatory utility operation program responsibilities.

#### **1.1 OPERATIONS PRACTICES**

This practice will outline several key actions that utilities shall take to better enable conservation program implementation, to supplement conservation incentives with regulations where appropriate, and to assist one another through the wholesaler-retailer relationship.

##### **A. Implementation**

Implementation shall consist of at least the following actions:

1) Conservation Coordinator (*formerly BMP 12*)

Designate a person as the agency's responsible conservation coordinator for program management, tracking, planning, and reporting on BMP implementation.

2) Water-waste prevention (*formerly BMP 13*)

a) New development

Enact, enforce, or support legislation, regulations, ordinances, or terms of service that (1) prohibit water-waste such as, but not limited to: single-pass cooling systems; conveyer and in-bay vehicle wash and commercial laundry systems which do not reuse water; non-recirculating decorative water fountains and (2) address irrigation, landscape, and industrial, commercial, and other design inefficiencies.

b) Existing users

Enact, enforce, or support legislation, regulations, ordinances, or terms of service that prohibit water-waste such as, but not limited to: landscape and irrigation inefficiencies, commercial or industrial inefficiencies, and other misuses of water.

c) Water-shortage measures

Enact, enforce, or support legislation, regulations, ordinances, or terms of service that facilitate implementation of water-shortage response measures.

### 3) Wholesale agency assistance programs (*formerly BMP 10*)

This section addresses assistance relationships between regional wholesale agencies and intermediate wholesale agencies as well as between wholesale agencies and retail agencies.

#### a) Financial investments and building partnerships

When mutually agreeable and beneficial to a wholesaler and its retail agencies, a wholesaler will provide financial assistance and help build partnerships to accomplish conservation. Wholesale water suppliers will consider avoided capital costs when making financial investments and build regional partnerships to advance water conservation efforts and effectiveness. Where applicable, intermediate wholesale water suppliers that receive conservation-related financial incentives from regional wholesalers will pass through eligible financial incentives to retail agencies operating programs at the retail level.

#### b) Technical support

When requested, wholesale water agencies will provide conservation-related technical support and information to retail agencies they serve. Support and information will include, but will not be limited to: workshops and support advice addressing conservation program planning, design, implementation, and evaluation.

#### c) Program management

When mutually advantageous, wholesale and retail water agencies will join together to plan, design, implement, manage, and evaluate regional conservation programs.

When mutually agreeable and beneficial, the wholesale agency or another lead regional agency will operate all or part of the conservation program; if the wholesale agency or other lead regional agency operates all or part of a program, then it may, by mutual consent with the retail agency, assume responsibility for CUWCC reporting for funded BMPs; under this arrangement, a wholesale agency or other lead regional agency may aggregate all or portions of the reporting and coverage requirements of all retail agencies joining into the mutual consent.

#### d) Water-shortage allocations

Wholesale agencies shall pursue water-shortage allocation policies or plans which minimize disincentives to long-term water conservation, and encourage and reward investments in long-term conservation shown to advance regional water supply reliability and sufficiency.

e) Non-signatory reporting

To the extent possible, wholesale water agencies will provide reports on BMP implementation within their service area by retail water agencies that are not signatories to the MOU.

f) Encourage CUWCC membership

Wholesale agencies will encourage all of their retail agencies to become MOU signatories, provide information to assist the CUWCC in recruitment targeting, and may assist in paying CUWCC dues for their retail agencies.

**B. Implementation Schedule**

Implementation shall commence no later than July 1 of the first year following the latter of either: 1) the year the agency signed or became subject to the MOU, or 2) the year this Exhibit is amended.

**C. Coverage Requirements**

Coverage shall consist of:

1) Conservation Coordinator

Staff and maintain the position of trained conservation coordinator, or equivalent consulting support, and provide that function with the necessary resources to implement BMPs.

2) Water waste prevention

Water Agency shall do one or more of the following:

- a) Enact and enforce an ordinance or establish terms of service that prohibit water waste
- b) Enact and enforce an ordinance or establish terms of service for water-efficient design in new development
- c) Support legislation or regulations that prohibit water waste
- d) Enact an ordinance or establish terms of service to facilitate implementation of water-shortage response measures
- e) Support local ordinances that prohibit water-waste
- f) Support local ordinances that establish permits requirements for water-efficient design in new development.

3) Wholesale agency programs

a) Financial investments and building partnerships

When mutually agreeable and beneficial to a wholesaler and its retail agencies cost-effectiveness assessments, including avoided cost per acre-foot, will be completed for each BMP the

wholesale agency is potentially obligated to support. The methodology used will conform to the Council standards and procedures, and the information reported will be sufficient to permit independent verification of the calculations and of any exemptions claimed on the cost-effectiveness grounds.

b) Technical support

*When requested* provide technical support, incentives, staff or consultant support, and equivalent resources to retail members to assist, or to otherwise support, the implementation of BMPs.

c) Program management

When mutually agreeable and beneficial to a wholesaler and its retail agencies offer program management and BMP reporting assistance to its retailers and the results of the offer will be documented. It is recognized that wholesale agencies have limited control over retail agencies that they serve and must act in cooperation with those retail agencies on implementation of BMPs. Thus, wholesale agencies cannot be held responsible for levels of implementation by individual retailers in their wholesale service areas.

d) Water-shortage allocation

Water-shortage allocations plans or policies will encourage and reward investments in long-term conservation.

e) Non-signatory reporting

Wholesale water agencies will report on non-signatory BMP implementation, when possible.

f) Encourage CUWCC membership

Wholesale agencies will encourage CUWCC membership and offer recruitment assistance.

**D. Requirements for Documenting BMP Implementation**

1) Conservation coordinator

Provide the contact information for the conservation coordinator, or consultant assigned, and verification that the position is responsible for implementing the tasks identified in Section A.1).

2) Water-waste prevention

Provide the following:

- a) A description of, or electronic link to, any ordinances or terms of service adopted by water agency to meet the requirements of this BMP



- b) A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- c) A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement consistent with this BMP.
- d) A description of agency support positions with respect to adoption of legislation or regulations consistent with this BMP.

3) Wholesale agency assistance programs

a) Financial investments and building partnerships  
List the total monetary amount of financial incentives and equivalent resources provided to retail members to assist with, or to otherwise support, implementation of BMPs, subtotaled by BMP. List regional partnerships developed to encourage resource conservation and maximize economies of scale benefits.

b) Technical support  
Supply a summary of types of technical support provided to retail agencies.

c) Program management  
If the wholesale agency has assumed reporting responsibility, list the programs managed on behalf of its retail agencies.

d) Water-shortage allocation  
If a water-shortage allocation plan or policy has been developed, provide the date of adoption and electronic link to the document or hardcopy.

e) Non-signatory reporting  
Receipt of reports

f) Encourage CUWCC membership  
List of efforts to recruit retailers and amount of dues paid on behalf of retail agencies.

**E. Water Savings Assumptions**

Not quantified. However, water savings may be realized in the following ways:

- 1) Wholesalers may use the Council's Cost and Savings document to assess the total amount of water savings achieved by each wholesaler-supported BMP. Other statistically validated sources may be also used to demonstrate water savings.
- 2) Water savings from enforcement of legislation and regulations will be projections developed based on anticipated savings from device(s) applied to the population subject to the regulation(s).
- 3) Water savings from implementation of water-waste prevention measures.

**(PLACEHOLDER: INSERT 1.2 PRICING (*formerly BMP 11*), 1.3 METERING (*formerly BMP 4*) AND 1.4 WATER LOSS CONTROL (*formerly BMP 3*) BMPs. This will be done once this document has been finalized.)**

## **2. EDUCATION PROGRAMS**

California water agencies have played a major role in stressing the need for their customers to conserve water through both public-information and school education programs. The specifics of how these programs are to be implemented are detailed below.

### **2.1 PUBLIC-INFORMATION PROGRAMS** *(formerly BMP 7)*

This section addresses opportunities to use public-information programs as an effective tool to inform customers about the need for water conservation and ways they can conserve, and to influence customer behavior to conserve.

#### **A. Implementation**

Implement a public-information program to promote water conservation and water conservation-related benefits. Implementation shall consist of at least the following actions:

- 1) The program should include, when possible, but is not limited to, providing speakers to employees, community groups and the media; using paid and public-service advertising; using bill inserts; providing information on customers' bills showing use for the last billing period compared to the same period the year before; providing public-information to promote water conservation measures; and coordinating with other government agencies, industry groups, public interest groups, and the media.
- 2) The program should include, when possible, social-marketing elements which are designed to change attitudes to influence behavior. This includes seeking input from the public to shape the water conservation message; training stakeholders outside the utility staff in water conservation priorities and techniques; and developing partnerships with stakeholders who carry the conservation message to their target markets.
- 3) When mutually agreeable and beneficial, the wholesale agency or another lead regional agency may operate all or part of the public-information program. If the wholesale agency operates the entire program, then it may, by mutual consent with the retail agency, assume responsibility for CUWCC reporting for this BMP. Under this arrangement, a wholesale agency may aggregate all or portions of the reporting and coverage requirements of the retail agencies joining into the mutual consent.

**B. Implementation Schedule**

Implementation shall commence no later than July 1 of the first year following the latter of either: 1) the year the agency signed or became subject to the MOU, or 2) the year this Exhibit is amended.

**C. Coverage Requirements**

Agencies shall maintain an active public-information program to promote and educate customers about water conservation.

At minimum a public-information program shall consist of the following components:

- 1) Contacts with the public (minimum = 4 times per year, i.e., at least quarterly).
- 2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).
- 3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).
- 4) Description of materials used to meet minimum requirement.
- 5) Annual budget for public outreach program.
- 6) Description of all other outreach programs (List follows in Section D).

**D. Requirements for Documenting BMP Implementation**

Agencies may report on all of the following activities, although agencies are only expected to meet the minimum requirements in section C. Coverage Requirements.

**Public-information Programs List**

- 1) Newsletter articles on conservation
- 2) Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
- 3) Landscape water conservation media campaigns
- 4) General water conservation information
- 5) Website
- 6) Email messages
- 7) Website -provide link to or list of qualified landscape professionals (WaterSense, California Landscape Contractors Association, Irrigation Association, etc.) and other helpful sites
- 8) Direct mail -seasonal postcards noting irrigation requirement changes
- 9) Direct mail or other notification to customer if water use is

- significantly higher than neighbors with similarly sized lots
- 10) Customer notification when neighbor reports runoff or runoff is noticed by employees or meter reads show rise in use of 20% or more from same time previous year
  - 11) Dedicated phone line or “on hold” messages with recorded conservation information
  - 12) Booths at local fairs/events
  - 13) Monthly water-use reports provided with comparison of water use to water budget
  - 14) Presentations
  - 15) Point of purchase pieces, including internet point of purchase by type: high-efficiency clothes washers, weather-based irrigation controller, high-efficiency toilets, plant palette information, other.
  - 16) Media outreach: news releases, editorial-board visits, written editorials, newspaper contacts, television contacts, radio contacts, articles or stories resulting from outreach. Provide names of local media markets: newspaper, TV stations, radio stations reached via media outreach program during the reporting period
  - 17) Adult Education/Training Programs: Topic(s) \_\_\_\_\_: number of presentations, number of attendees
  - 18) Water Conservation Gardens: involvement in a garden that promotes and educates the public about water-efficient landscaping and conservation techniques. May include “Corporate” or “business” sponsorship or membership.
  - 19) Sponsor or co-sponsor landscape workshops/training for homeowners and/or homeowners associations: number of presentations; number in attendance
  - 20) Landscape-watering calculator and watering index to assist with weekly irrigation scheduling
  - 21) Additional program(s) supported by agency but not mentioned above
  - 22) Total reporting period budget expenditure for public outreach/training/adult education programs (include all agency costs)

### **Social-marketing Programs List**

#### **Developing the Conservation Message:**

- 1) Does your agency have a water conservation “brand,” “theme” or mascot: If so briefly describe: \_\_\_\_\_
- 2) Have you sponsored or participated in market research to refine your message? If so topic: \_\_\_\_\_ Message of above brand? Mission Statement?
- 3) Do you have a community conservation committee?  
If yes, its focus is on:
  - a. Conservation in general;
  - b. Landscape;
  - c. Education;
  - d. Commercial/industrial/institutional;

- e. Other:\_\_\_\_\_
- 4) Training for stakeholders who help support programs or educate others about conservation:
    - a. Professional landscapers: number of sessions/classes; number of attendees: on irrigation equipment; other
    - b. Plumbers: number of sessions/classes; number of attendees
    - c. Homeowners: number of sessions/classes; number of attendees: on irrigation equipment; other
  - 5) Additional program(s) supported by agency but not mentioned above.
  - 6) Total reporting period budget expenditure for social-marketing programs (include all agency costs)

Partnering programs:

- 1) Master Gardeners; Type of program:\_\_\_\_\_
- 2) CLCA; Type of program:\_\_\_\_\_
- 3) Cooperative Extension; Type of program:\_\_\_\_\_
- 4) Retail and wholesale outlets Name(s):\_\_\_\_\_Type of program:\_\_\_\_\_
- 5) Local Colleges; Type of program:\_\_\_\_\_
- 6) Green Building Programs; Type of program:\_\_\_\_\_
- 7) Other \_\_\_\_\_
- 8) Newsletter articles published in other entities' newsletters:
  - a. HOAs: number per year to number of customers
  - b. City materials: number per year to number of customers
  - c. Non-profits: number per year to number of customers
  - d. Other: number per year to number of customers
- 9) Other utilities, including electric utilities
- 10) Water conservation gardens at utility or other high traffic areas or new homes
- 11) Water-wise landscape contest or awards program

**E. Water Savings Assumptions**

Not quantified.

## **2.2 SCHOOL EDUCATION PROGRAMS (formerly BMP 8)**

School education programs have been implemented to reach the youngest water users at an early age and enforce the need to engage in water conservation as a life-long behavior. This section provides specifics on how school education programs are to be implemented.

### **A. Implementation**

Implementation shall consist of at least the following actions:

- 1) Implement a school education program to promote water conservation and water conservation-related benefits.
- 2) Programs shall include working with school districts and private schools in the water suppliers' service area to provide instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Educational materials shall meet the state education framework requirements and grade-appropriate materials shall be distributed.
- 3) When mutually agreeable and beneficial, the wholesale agency or another lead regional agency will operate all or part of the education program; if the wholesale agency operates all or part of the retail agency's school education program, then it may, by mutual consent with the retail agency, assume responsibility for CUWCC reporting of this BMP; under this arrangement, a wholesale agency may aggregate all or portions of the reporting and coverage requirements of the retail agencies joining into the mutual consent

### **B. Implementation Schedule**

Implementation shall commence no later than July 1 of the first year following the latter of either: 1) the year the agency signed or became subject to the MOU, or 2) the year this Exhibit is amended.

### **C. Coverage Requirements**

Agencies shall maintain an active school education program to educate students in the agency's service area about water conservation and efficient water use. An agency may participate in a mutual arrangement as described in Section A.

At minimum a school information program shall consist of the following:

- 1) Curriculum materials developed and/or provided by agency (including confirmation that materials meet state education framework requirements and are grade-level appropriate).
- 2) Materials distributed to K-6 students. When possible, school education programs will reach grades 7-12 as well.
- 3) Description of materials used to meet minimum requirement.
- 4) Annual budget for school education program.
- 5) Description of all other water supplier education programs (Lists follow in Section D).

#### **D. Requirements for Documenting BMP Implementation**

Agencies may report on all of the following activities, although they are only expected to meet the minimum requirements in section C. Coverage Requirements.

#### **School Education Programs List**

- 1) Classroom presentations: number of presentations, number of attendees, topics covered: conservation, recycled water, water sources, pollution prevention, etc.
- 2) Large group assemblies: number of presentations, number of attendees
- 3) Children's water festivals or other events: number of presentations, number of attendees
- 4) Cooperative efforts with existing science/water education programs (various workshops, science-fair awards or judging) and follow-up: number of presentations, number of attendees.
- 5) Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits) Description \_\_\_\_\_; number distributed
- 6) Staffing children's booths at events & festivals: number of booths, number of attendees
- 7) Water conservation contests such as poster and photo Description \_\_\_\_\_; number of participants.
- 8) Offer monetary awards/funding or scholarships to students: number offered; total funding
- 9) Teacher training workshops: number of presentations, number of attendees
- 10) Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.: number of tours or field trips, number of participants.
- 11) College internships in water conservation offered: number of internships; total funding
- 12) Career fairs/workshops: number of presentations, number of attendees
- 13) Additional program(s) supported by agency but not mentioned above.



Description: \_\_\_\_\_; number of events (if applicable); number of participants.

- 14) Total reporting period budget expenditures for school education programs (include all agency costs)

**E. Water Savings Assumptions**

Not quantified.

## **PROGRAMMATIC BMPs**

Signatories have the option of implementing each BMP as described below, or implementing measures identified in the Flex Track Menu alternative included in each Programmatic BMP.

### **3. RESIDENTIAL**

Residential water users throughout California depend on a reliable and safe supply of water for their homes. This BMP will define the best and most proven water conservation methods and measures those residents, working in conjunction with water agencies, can implement. By implementing these methods and measures homeowners, multi-family property owners, and tenants will increase water use efficiency and reliability. Credit for prior activities, as reported through the BMP database, will be given for documented water savings achieved through 2008.

#### **A. Implementation**

Retail water agencies shall implement a water use efficiency program that consists of either the coverage goals listed below or achieving the water savings goals by implementing measures on the Flex Track Menu in Section F below.

1). Residential assistance program (*formerly BMPs 1 & 2*)

Provide site-specific leak detection assistance that may include, but is not limited to, the following: a water conservation survey, water efficiency suggestions, and/or inspection. Provide showerheads and faucet-aerators that meet the current water efficiency standard as stipulated in the WaterSense Specifications (WSS) as needed.

2) Landscape water survey (*formerly BMP 1*)

Perform site-specific landscape water surveys that shall include, but are not limited to, the following: check irrigation system and timers for maintenance and repairs needed; estimate or measure landscaped area; develop customer irrigation schedule based on precipitation rate, local climate, irrigation system performance, and landscape conditions; review the scheduling with customer; provide information packet to customer; and provide customer with evaluation results and water savings recommendations.

3) High-efficiency clothes washers (HECWs) (*formerly BMP 6*)

Provide incentives or institute ordinances requiring the purchase of high-efficiency clothes washing machines (HECWs) that meet an average

water factor value of 5.0. If the WaterSense Specification is less than 5.0, then the average water factor value will decrease to that amount.

4) WaterSense Specification (WSS) toilets (*formerly BMP 14*)

Provide incentives or ordinances requiring the replacement of existing toilets using 3.5 or more gpf (gallons per flush) with a toilet meeting WSS.

5) WaterSense Specifications for residential development

Provide incentives such as, but not limited to, rebates, recognition programs, or reduced connection fees, or ordinances requiring residential construction meeting WSS for single-family and multi-family housing until a local, state or federal regulation is passed requiring water-efficient fixtures.

**B. Implementation Schedule**

Implementation shall commence no later than July 1 of the first year following the latter of either: 1) the year the agency signed or became subject to the MOU, or 2) the year this exhibit is amended.

**C. Coverage Requirements**

Coverage shall consist of:

1) Residential Assistance

Provide leak detection assistance to an average of 1.5 percent per year of current single-family accounts and 1.5 percent per year of current multi-family units during the first ten years after signing the MOU. After completing the ten-year 15 percent target, agencies will maintain a program at the level of high-bill complaints or not less than 0.75 percent per year of current single-family accounts and 0.75 percent per year of current multi-family units. Showerhead distribution will be considered complete when 75 percent market saturation is achieved.

2) Landscape water survey

Provide landscape water surveys to an average of 1.5 percent per year of current single-family accounts during the first ten years after signing the MOU. After completing the ten-year 15 percent target, agencies will maintain a program at the level of high-bill complaints or no less than 0.75 percent per year of current single-family accounts and multi-family accounts.

3) High-efficiency clothes washers

Provide financial incentives for the purchase of HECWs that meet an average water factor value of 5.0. If the WaterSense Specification is less than 5.0, then the water factor value will decrease to that amount. Incentives shall be provided to 0.9 percent of current single-family accounts during the first reporting period following BMP implementation, rising to 1.0 percent per year of current single-family accounts for the remainder of ten-year period following signing of the MOU. An alternative method is to demonstrate 1.4 percent per year of the market penetration during the first ten years after signing the MOU.

4) WaterSense Specification (WSS) toilets

A financial incentive shall continue to be offered for toilets meeting the current WSS and updated standard whenever a more efficient toilet is identified by WSS. Compliance will entail demonstrating a number of toilet replacements of 3.5 gpf or greater toilets at or above the level achieved through a retrofit on resale ordinance until 2014, or a market saturation of 75% is demonstrated, whichever is sooner.

5) WSS for new residential development

An incentive shall continue to be offered until a water agency, or local, state or federal regulation is in effect meeting at a minimum, WSS for water-efficient single-family homes. Multi-family housing shall also meet the WSS in all applicable criteria regardless of the total number of stories in the building.

**D. Requirements for Documenting BMP Implementation**

1) Residential assistance

Provide reports, disaggregated by single-family and multi-family units, identifying: the number of residential assistance/leak detection survey visits completed; number of WSS showerheads distributed; and number of WSS faucet aerators distributed during the reporting period.

2) Landscape water survey

Provide the number of single-family account landscape water surveys completed during the reporting period.

3) High-efficiency clothes washers

The number of installations credited to the agency's replacement program for HECWs with an average water factor value of 5.0. If the WaterSense Specification is less than 5.0, then the water factor value will decrease to that amount.

4) WaterSense Specification (WSS) toilets

A description of the program along with the number of WSS toilet installations credited to the agency's replacement program disaggregated by single-family or multi-family units.

5) WSS for new residential development

Provide a copy of the new development ordinance currently adopted by the reporting unit or provide the following incentive program details: number of new single-family and multi-family units built in service area during the reporting period; description of incentives offered; list of incentive amounts; number of WSS fixtures installed; and number of participating single-family home and multi-family units.

**E. Water Savings Assumptions**

Water savings assumptions will be based on the type and number of actions implemented.

**F. Flex Track Menu**

In addition to the measures above, the Flex Track Menu options may be implemented in part or any combination to meet the savings goal for this BMP. Agencies choosing the Flex Track Menu are responsible for achieving water savings greater than or equal to that which they would have achieved using only the BMP list items. Water savings estimates for the Flex Track Menu items will be maintained and regularly updated in the MOU Compliance Policies and BMP Guidebook.

#### **4. COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL** *(formerly BMP 9)*

Commercial, industrial, and institutional (CII) water demands make up a large percentage of total demand for California. CII water use varies dramatically between business sectors as well as within a given water agency's territory. The goal of this BMP is to implement comprehensive yet flexible best management practices, allowing each water agency to tailor the implementation of each practice to fit local needs and opportunities. The end result is a practice that is successful and will produce the greatest amount of cost-effective water savings.

##### **A. Implementation**

Implement measures to achieve the water savings goal for CII accounts of 10% of the baseline water use over a 10-year period. Baseline water use is defined as the water consumed by CII accounts in the agency's service area in 2008. Credit for prior activities, as reported through the BMP database, will be given for up to 50% of the goal; in this case, coverage will consist of reducing annual water use by CII accounts by an amount equal to the adjusted percentage goal within 10 years. Implementation shall consist of item 1) or 2) or both in order to reach the agency's water savings goals.

1) Implement measures on the CII list with well-documented savings that have been demonstrated for the purpose of documentation and reporting. The full list and their associated savings are included in the "Demonstrated Savings Measure List" in Section E below.

2) Implement unique conservation measures to achieve the agency's water savings goals. Sample measures include, but are not limited to: industrial process water use reduction, industrial laundry retrofits, car wash recycling systems, water-efficient commercial dishwashers, and wet cleaning. Water use reduction shall be calculated on a case-by-case basis. Agencies will be required to document how savings were realized and the method and calculations for estimating savings. See the CII Flex Track Menu list in the attachment to Exhibit 1, as updated in the MOU Compliance Policy and BMP Guidebook.

**B. Implementation Schedule**

Implementation shall commence not later than July 1 of the first year following the latter of either: 1) the year the agency signed or became subject to the MOU, or 2) the year this Exhibit is amended.

**C. Coverage Requirements**

Coverage shall consist of meeting the annual water savings goal in Section A. Although it is not one of the criteria in meeting implementation, agencies will be considered on track if estimated savings as a percent of baseline water use equals or exceeds the following:

0.5% by the end of first reporting period (year two), 2.4% by the end of year four, 4.3% by the end of year six, 6.4% by the end of year eight, and 9% by the end of year ten. Percentages will be adjusted proportionally for up to 50% past credit referred to in the Implementation section.

**D. Requirements for Documenting BMP Implementation**

Each reporting period agencies are required to report the estimated reduction in annual water use for all CII accounts.

1) CII List

For measures on the CII list with demonstrated savings, agencies shall report the measure type and quantity installed, as well as savings attributed to water-shortage measures, intervention and actions.

2) Flex Track Menu

For measures on the Flex Track Menu, agencies shall use one of three methods of measurement listed below to track savings. Agencies shall report the type of measure implemented, the industry in which the measure was implemented, and estimated savings as well as the measure life. Agencies shall keep detailed usage data on file and report the annual and lifetime savings.

a) Point-of-retrofit Metering

Usage data collected from meters installed at the point of retrofit.

b) Customer Bill Analysis

Pre-and post-program usage from utility bills from the appropriate meters related to the measures implemented. For mixed-use meters, a minimum of 12 months pre-retrofit and 12 months post-retrofit usage data shall be used to calculate savings. The data shall be normalized for weather. For dedicated meters, a minimum

of 6 months pre-retrofit and 6 months post-retrofit data shall be used to calculate savings.

c) Agency-Provided Calculation

If an agency is unable to provide point-of-retrofit metering or customer bill analysis, the agency must document how savings were realized and the method and calculations for estimated savings. The calculation and assumptions are subject to approval by the Council on a case-by-case basis.

**E. Water Savings Assumptions**

The Demonstrated Savings Measure List is found below. For assistance in calculating savings from unique measures used in the Flex Track Menu approach, see the BMP Guidebook. .

<b>Measure</b>	<b>Annual Savings (acre-feet)</b>	<b>Measure Life (years)</b>
1. High-efficiency Toilets	.041748	25
2. High-efficiency Urinals	.069086	25
3. Ultra Low Volume Urinals	.080603	25
4. Zero Consumption Urinals	.0921146	25
5. Commercial High-efficiency Single Load Clothes Washers	0.116618	10
6. Cooling Tower Conductivity Controllers	1.032250	5
7. Cooling Tower ph Controllers	3.981543	5
8. Connectionless Food Steamers	Per Steamer Compartment .25	10
9. Medical Equipment Steam Sterilizers	1.538	20
10. Water-efficient Ice Machines	0.834507	10
11. Pressurized Water Brooms	0.1534	5
12. Dry Vacuum Pumps	0.64	7



**F. Flex Track Menu**

In addition to the measures above, the Flex Track Menu options may be implemented in part or any combination for CII customers to meet the water savings goal of this BMP. Agencies may choose to implement any alternative with measurable water savings. Agencies choosing the Flex Track Menu option are responsible for achieving water savings greater than or equal to that which they would have achieved using only the BMP list items. Water savings estimates for the Flex Track Menu items will be maintained and regularly updated in the MOU Compliance Policies and BMP Guidebook.

Custom measures shall be calculated on a case-by-case basis. Agencies will be required to provide documentation on how savings were realized and the method and calculations for estimating savings.

## **5. LANDSCAPE** *(formerly BMP 5)*

Irrigation accounts for a large portion of urban water use in California. Irrigation water use varies dramatically depending on water pricing and availability, plant choice, geographic locations, seasonal conditions, and the level of commitment to sound water efficiency practices. The goal of this BMP is that irrigators, with assistance from signatories, will achieve a higher level of water use efficiency consistent with the actual irrigation needs of the plant materials. Reaching this goal would reduce overall demands for water, reduce demands during the peak summer months, and still result in a healthy and vibrant landscape for California.

### **A. Implementation**

Agencies shall provide non-residential customers with support and incentives to improve their landscape water use efficiency. Credit for prior activities, as reported through the BMP database, will be given for documented water savings achieved through 2008. This support shall include, but not be limited to, the following:

#### **1) Accounts with Dedicated Irrigation Meters**

- a) Identify accounts with dedicated irrigation meters and assign ETo-based water-use budgets equal to no more than an average of 70% of ETo (reference evapotranspiration) of annual average local ETo per square foot of landscape area in accordance with the schedule below.

Recreational areas (portions of parks, playgrounds, sports fields, golf courses, or school yards in public and private projects where turf provides a playing surface or serves other high-use recreational purposes) and areas permanently and solely dedicated to edible plants, such as orchards and vegetable gardens, may require water in addition to the water-use budget. (These areas will be referred to as “recreational” below.) The water agency must provide a statement designating those portions of the landscape to be used for such purposes and specifying any additional water needed above the water-use budget, which may not exceed 100% of ETo on an annual basis.

If the California Model Water-efficient Landscape Ordinance is revised to reduce the water allowance, this BMP will be revised automatically to reflect that change.

- b) Provide notices each billing cycle to accounts with water-use budgets showing the relationship between the budget and actual consumption.

- c) Offer site-specific technical assistance to reduce water use to those accounts that are 20% over budget in accordance with the schedule given in Section B; agencies may choose not to notify customers whose use is less than their water-use budget.
- 2) Commercial/Industrial/Institutional (CII) Accounts without Meters or with Mixed-Use Meters
  - a) Develop and implement a strategy targeting and marketing large landscape water-use surveys to commercial/industrial/institutional (CII) accounts with mixed-use meters.
  - b) In un-metered service areas, actively market landscape surveys to existing accounts with large landscapes, or accounts with landscapes which have been determined by the purveyor not to be water-efficient .
- 3) Offer financial incentives to support 1) and 2) above.

**B. Implementation Schedule**

- 1) Implementation shall commence not later than July 1 of the first year following the latter of either: 1) the year the agency signed or became subject to the MOU, or 2) the year this Exhibit is amended.
- 2) Per year at least 9% of accounts with dedicated meters and 1.5% of all mixed-use or non-metered accounts will receive the assistance detailed in Section A. 1) and 2) above. At least 90% of all dedicated meters and 15% of all mixed-use and non-metered accounts will receive the assistance over a ten-year period.

**C. Coverage Requirements**

Coverage shall consist of:

- 1) ETo-based water-use budgets developed for 90% of CII accounts with dedicated irrigation meters at an average rate of 9% per year over 10 years.
- 2) Offer site-specific technical assistance annually to all accounts that are 20% over budget within six years of the date implementation was to commence.
- 3) Complete irrigation water-use surveys for not less than 15% of CII accounts with mixed-use meters and un-metered accounts within 10 years of the date implementation is to commence. (Note: CII surveys

that include both indoor and outdoor components can be credited against coverage requirements for both the Landscape and CII BMPs.)

An agency will be considered on track if the percent of CII accounts with mixed-use meters receiving a landscape water-use survey equals or exceeds the following: 1.5% by the end of the first reporting period (year two) following the date implementation is to commence; 3.6% by the end of year four; 6.3% by the end of year six; 9.6% by the end of year eight; and 13.5% by the end of year ten.

Agency may credit 100% of the number of landscape water-use surveys for CII accounts with mixed-use meters completed prior to July 1, 2007 that have received a follow-up inspection against the coverage requirement; agency may credit 50% of surveys that have not received follow-up inspections. Agency may credit 100% of the number of landscape water-use surveys completed for CII accounts with mixed-use meters after July 1, 2007 against the coverage requirement.

- 4) Agency will implement and maintain a customer incentive program(s) for irrigation equipment retrofits.

**D. Requirements for Documenting BMP Implementation**

1) Dedicated Landscape Irrigation Accounts

Agencies shall preserve water-use records and budgets for customers with dedicated landscape irrigation accounts for at least four years. This information may be used by the Council to verify the agency's reporting on this BMP.

- a) Number of dedicated irrigation meter accounts.
- b) Number of dedicated irrigation meter accounts with water budgets.
- c) Aggregate water use for dedicated non-recreational landscape accounts with budgets.
- d) Aggregate acreage assigned water budgets and average ET for dedicated non-recreational landscape accounts with budgets.
- e) Number of Accounts 20% over budget.
- f) Number of accounts 20% over budget offered technical assistance.
- g) Number of accounts 20% over budget accepting technical assistance

h) Aggregate acreage of recreational areas assigned water budgets and average ET for dedicated recreational landscape accounts with budgets.

2) CII Accounts without Meters or with Mixed-Use Meters

- a) Number of mixed use and un-metered accounts.
- b) Number, type, and dollar value of incentives, rebates, and no-or low-interest loans offered to, and received by, customers.
- c) Number of surveys offered.
- d) Number of surveys accepted.
- e) Estimated annual water savings by customers receiving surveys and implementing recommendations.

**E. Water Savings Assumptions**

Assume landscape BMP will result in a 15%-20% reduction in demand for landscape irrigation by affected accounts, as defined in Section C: Coverage Requirements.

**F. Flex Track Menu**

In addition to the measures above, the Flex Track Menu options may be implemented in part or any combination to meet the savings goal for this BMP. Agencies choosing the Flex Track Menu option are responsible for achieving water savings greater than or equal to that which they would have achieved using only the BMP list items. Water savings estimates for the Flex Track Menu items will be maintained and regularly updated in the MOU Compliance Policies and BMP Guidebook..